

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY
CIVIL NO. 13-CV-4507(CCC)

IN RE: DEPOMED PATENT LITIGATION

TRANSCRIPT OF
PROCEEDINGS
(P.M. Session)
(Public)

- - - - -

Newark, New Jersey
March 14, 2016

B E F O R E:

THE HONORABLE CLAIRE C. CECCHI,
United States District Judge

Pursuant to Section 753 Title 28 United States Code,
the following transcript is certified to be an accurate record
as taken stenographically in the above-entitled proceedings.

S/Yvonne Davion
Yvonne Davion, CCR
Official Court Reporter

A P P E A R A N C E S

KEITH MILLER, ESQ.
(Robinson Miller)

MICHAEL SITZMAN, ESQ
CHRISTINE RANNEY, ESQ.
FRANK P. COLE, ESQ.
JAYSEN S. CHUNG, ESQ.
DAVID GLANDORF, ESQ.
(Gibson, Dunn & Crutcher, LLP)
For Depomed and Janssen

MELISSA CHUDEREWICZ, ESQ.
(Pepper Hamilton, LLP)

LINDA A. WADLER, ESQ.
BASIL J. LEWRIS, ESQ.
(Finnegan, Henderson, Farabow, Garrett & Dunner, LLP)
For Grunenthal

JAMES RICHTER, ESQ.
(Winston & Strawn, LLP)

SAL PATEL, ESQ.
IMRON ALY, ESQ.
(Schiff Hardin, LLP)
For Alkem

KENNETH G. SCHULER, ESQ.
TERRENCE CONNOLLY, ESQ.
(Latham & Watkins, LLP)

AMY M. HANDLER, ESQ.
(Sills Cummis & Gross)
For Roxane Laboratories

SHEILA RAFTERY WIGGINS, ESQ.
VINCENT CAPUANO, PHD ESQ.
ANTHONY FITZPATRICK, ESQ.
(Duane Morris, LLP)
For Actavis Elizabeth, LLC and
Watson Laboratories, Inc

W I T N E S S E S

Thomas Christoph

Cross examination by Mr. Aly

Redirect examination by Mr. Sitzman

Recross examination by Mr. Schuler

Recross examination by Mr. Aly

Michelle Brown

Direct examination by Mr. Glandorf

Cross examination by Mr. Capuano

1 T H O M A S C H R I S T O P H, sworn and testifies as follows:

2 CROSS EXAMINATION BY MR. ALY:

3 THE COURT: We are going to continue with the
4 cross. And I will remind the witness that he remains under
5 oath. Thank you.

6 Q. Good afternoon, Dr. Christoph.

7 A. Good afternoon.

8 Q. I would like also to start with timeline demonstrative
9 slide 13 that you had presented.

10 This is the timeline you discussed on direct
11 examination. Is that right?

12 A. Yes.

13 Q. And in that timeline you said that as compared to the
14 tests and trials that you discussed during direct, everything
15 that was on here that you discussed and nothing is missing.
16 Is that right?

17 A. Yes.

18 Q. And if we can walk through some of those and I get to
19 my questions here first the Bennett report in November 1994,
20 that related to mononeuropathic pain, correct?

21 A. That's correct.

22 Q. And mono and polyneuropathic are two different kinds of
23 pain. Is that right?

24 A. Yes.

25 Q. We have the Chung report here in December 2000 that

1 also related to mononeuropathic only. Is that right?

2 A. That's correct.

3 Q. And then December 18, 2002 you did the STZ experiments
4 and that you said related to polyneuropathic pain. Is that
5 right?

6 A. That's correct.

7 Q. And then in between December 18, 2002 and March 12,
8 2007, you didn't rush to the patent office in that time. Is
9 that fair to say?

10 A. I don't recall any interaction with the patent office.

11 Q. Well, you had submitted a patent application in
12 March 2007, correct?

13 A. Yes.

14 Q. And in between 2002 you did the STZ experiments. And
15 in fact you waited about three years to do the vincristine test
16 that you talked about?

17 A. It took quite some time to develop the vincristine
18 model. As I said, this was done by, it was developed by
19 Lillian Maymor (ph) and she came in early 2002. So we started
20 to think about getting access to polyneuropathic pain models
21 and somewhere in the range of maybe in the range of the Chung
22 report.

23 We were thinking how could be get access to these
24 models. And then we got the opportunity to bring in Lillian
25 Maymor work to do the post work and she brought us or she had

1 the experience and the know how. And she developed during her
2 post doc time a vincristine model. And she did quite some work
3 on this vincristine model comparing it with a number of
4 different other polyneuropathic pain models.

5 And in the end turned out that the vincristine would be
6 the suitable one, robust enough one to make a, test a
7 pharmacological test on it.

8 Q. So, your testimony is you took sometime to develop even
9 the test to do the vincristine report.

10 Is that what you are saying?

11 A. We invested a lot of effort in developing the model
12 until we got to the time when the vincristine was available.

13 Q. And it took you over three years even to come up with
14 that model. Is that correct?

15 A. I don't know exactly the times but one might look in
16 the details of the vincristine report and what time this was
17 done. And I remember that we also, Lillian Maymor she left I
18 think in 2004 and this model was also transferred to a
19 technician who took over then the testing.

20 Q. And then before 2005 when the results were in about
21 vincristine which you said was a good model, there are no other
22 tests that you discussed between July 2005 and the time you
23 filed the patent in March 2007. Is that right?

24 A. I don't know whether we discussed anymore models as I
25 don't recall.

1 Q. And sir, did you at Grunenthal at this time between
2 1999 and 2007, was Tapentadol the only drug you were working on
3 or were you working on other projects as well?

4 A. We worked on a number of different projects.

5 Q. More than five projects at the same time?

6 A. I don't recall.

7 Q. Of course there would be days if not weeks where you
8 wouldn't be working at Tapentadol in that window of time.

9 Is that right? Between 1999 and 2007?

10 A. Could you repeat the question?

11 Q. Sure. There would be days if not weeks of time where
12 you were not actively working on Tapentadol between the time
13 frame of November 1999 and March 2007. Is that correct?

14 A. Well, if you look at the pure working time in the lab,
15 that's, I think, correct. I don't recall how much we
16 discussed internally on these data and what did we, what the
17 result of these discussions were which led to further
18 experiments.

19 Q. And so as far as the timing, we've addressed that now.
20 I want to talk about the bottom half of this particular slide
21 where you talk about these changes, references 1, 2 and 3.

22 Do you see that?

23 A. Yes.

24 Q. Do you agree that Dr. Tzchentke is not an inventor on
25 the '130 patent?

1 A. That's correct.

2 Q. And Dr. Tzchentke was at Grunenthal at the time that
3 you were, correct?

4 A. Yes, he was.

5 Q. You are the co-author on a couple of these Tzchentke
6 references, correct?

7 A. Yes.

8 Q. Did you tell Dr. Tzchentke, please do not publish the
9 information about Tapentadol, we haven't filed for a patent
10 yet?

11 A. I don't recall talking to Dr. Tzchentke about the
12 patent invention. I recall that he was the person responsible
13 for bringing all pharmacological data together. And he also
14 got the responsibility to write papers on this.

15 Q. And that's my question. Not only did you not tell Dr.
16 Tzchentke to not publish, as a matter of fact you gave him all
17 of the information specifically to publish it, right?

18 A. Well, this was the way the whole department did it
19 because we had lots of, if you look at these different
20 Tzchentke references, there are not only data on neuropathic
21 pain, there are data on visceral pain also from my labs. There
22 are data on acute nociceptive pain, inflammatory pain. All of
23 these data came together.

24 And Dr. Tzchentke had the responsibility to somehow to
25 act as a window person and to collect all these data.

1 Q. And isn't it true sir that Dr. Tzchentke collected that
2 information including from you. And you knew he was going to
3 make publications with that information, correct?

4 A. Well, he received all the information, of all the labs.
5 And he was, his responsibility or his task was to do some
6 publication of this.

7 Q. And did you know that that was his task at the time, to
8 do some publication?

9 A. Yes, I knew this.

10 Q. Now as far as the materials that was included that Dr.
11 Tzchentke gathered, he also gathered information from people
12 that were not named as inventors on the '130 patent, right?

13 A. Yes, these were all these different data which were
14 generated in the labs of my colleagues like Robert Kugle and
15 Bob Shena (ph), like Thomas Tzchentke himself. This was all
16 different data from the whole department.

17 Q. In all of the tests that you described, and I am
18 talking about all of them that are appearing on demonstrative
19 13, not one of them was a human administrative trial, correct?

20 A. Well, since these were all pre Kugle data and Thomas
21 Tzchentke who was also a colleague in the pharmacology, all of
22 these pre-communicative data generated in rats and mice.

23 Q. Now Dr. Tzchentke's deposition was taken in this case.
24 Do you know him to be someone who tells a falsehood or tells
25 lies about what work people did on the articles he published?

1 A. Well, I know him as a responsible and truthful
2 colleague. I don't know what he, what he witnessed. I have
3 no idea.

4 Q. And so as far as you're here today if Dr. Tzchentke
5 said something different than what you said about the materials
6 in the articles, right now you don't have any reason to
7 disagree with anything he said. Is that right?

8 A. Well, I wouldn't see what this could be. Of course it
9 depends on the subject which he was talking about. But, this
10 I cannot judge.

11 Q. Okay. Let's change then to a third topic with you and
12 that is the declaration that you discussed with Mr. Schuler.
13 And that is at PTX 1600 tab H production number GRTNUC 4045.

14 To make sure what we are looking at Dr. Christoph there
15 was a point in time when the patent office said that we think
16 that the invention you are submitting might be invalid, might
17 be obvious.

18 Do you recognize that?

19 A. Well, if I remember correctly, there was some
20 discussion on this including statements of these Buschmann
21 reference and the Walken (ph) reference.

22 Q. And as part of the work that you did, you were asked to
23 submit a declaration to the patent office during the time that
24 the patent was being reviewed, right?

25 A. Well, I gave all my data to the patent office at that

1 time.

2 Q. And you were asked to put that in a declaration to the
3 patent office, correct?

4 A. I don't recall.

5 Q. And in this declaration let's look at some information
6 on production number, it will be Page 7 of the Document 44051.

7 This is some of the data appearing here Dr. Christoph
8 that you submitted to the patent office, correct?

9 A. Yes.

10 Q. And if we can highlight the two graphs. Zoom in on
11 those. And what we have in our comparison to the patent
12 office is some tests with Tapentadol on top, correct?

13 A. That's correct.

14 Q. And morphine on the bottom, correct?

15 A. Yes, that's true.

16 Q. The reason you chose morphine is because it's an
17 opioid, right?

18 A. The reason why we choose morphine was because it's the
19 standard opiate. It's the gold standard for treatment of
20 severe chronic pain conditions. And it's in the same ballpark
21 as Tapentadol.

22 Q. Now, you knew, though, sir, at this time when you are
23 submitting the declaration, that Grunenthal had Tramadol
24 available, correct?

25 A. Yes.

1 Q. Tramadol was commercially available in fact, correct?

2 A. Sure.

3 Q. And you didn't submit any comparison of Tapentadol to
4 Tramadol to the patent office, right?

5 A. But I think there is some comparison to Tramadol in the
6 invention text in the patent.

7 Q. I'm asking about the data in the declaration.

8 Did you submit any comparison of data between
9 Tapentadol and Tramadol, sir?

10 A. No. I mean in this model, as I said, this was a model
11 which we newly developed, the C T analgesia model. And I don't
12 think we tested Tramadol in this model because it wasn't
13 considered to be the appropriate comparator.

14 It was morphine which we wanted to compare with since
15 morphine has similar potency in acute nociception and morphine
16 shows very different from Tramadol, shows similar abuse
17 liability matters, abuse liabilities than compared with
18 Tramadol.

19 So, to our understanding morphine was the correct
20 comparator in this study.

21 Q. At the time you submitted the declaration, Dr.
22 Christoph, you knew that Tramadol had two mechanisms of
23 action, an opioid mechanism and a non opioid, correct?

24 A. Yes. We knew that Tramadol had an opiate agonistic
25 activity. We knew that it had a norepinephrine reuptake of 55

1 HT reuptake and all of these need to be, as I said before, all
2 of these needs to be activated and present and all are located
3 on different entities of the molecule. So, it's a very
4 complex mixture.

5 Q. And, sir, you also agreed on the cross-examination that
6 Mr. Schuler did, that you in fact you yourself had published on
7 Tramadol having the dual action opioid and non opioid before
8 you signed this declaration, right?

9 A. This was a publication on Tramadol versus morphine in
10 polyneuropathic pain. This is not --

11 Q. I think you answered my question.

12 A. -- the matter of this field.

13 Q. And on this particular model here in your declaration
14 you said that morphine had, was not on -- sorry, let me start
15 over. You said that morphine was a better comparison than
16 Tramadol because Tramadol has different enantiomers that are in
17 the mix?

18 A. No, this was a Tramadol statement.

19 Q. Because you know, sir, that morphine is a mixture of
20 enantiomers also, right?

21 A. Morphine?

22 Q. Morphine.

23 A. The activity of morphine is solely, it's a MU receptor
24 agonist.

25 Q. Do you know if morphine is a combination of enantiomers

1 or not, sir?

2 A. I don't think so.

3 Q. Morphine has five stereo centers doesn't it on the
4 compound?

5 A. Well, I'm not a chemist.

6 Q. So you don't know how many enantiomers there are for
7 morphine?

8 A. I couldn't draw you the chemical structure of morphine,
9 sir.

10 Q. Do you understand then that Morphine has an active
11 metabolite or activity metabolites. It's not morphine itself
12 but the metabolites that are responsible for the opioid
13 activity. Did you know that?

14 A. I know that morphine itself shows a strong opioid
15 receptor agonistic activity.

16 Q. When given to man, it's the morphine M6 glucuronide,
17 M6G for short? That's the most active MU opioid component and
18 that's a metabolite, correct?

19 A. It's not so easy. It's also complex because M6G, to my
20 recollection, is a strong MU opioid agonist which is, by the
21 way, the same mechanism as the mother compound morphine, as
22 morphine itself. And it gets, it gets metabolized so it will
23 disappear by time.

24 So you have when giving morphine and it's metabolized
25 to M6G, you will find only the MU opioid receptor activity

1 present in the treated subject. And that's different from
2 Tramadol because there if you give Tramadol alone and give it
3 to a subject which is not able to metabolize Tramadol, the
4 subject will not receive any MU opioid receptor activity.

5 Q. Let me see if you can answer my question which is
6 whether or not M6G is a metabolite of morphine or not?

7 A. M6G yes is a metabolite of morphine.

8 Q. Now, did you know that Tapentadol development at
9 Grunenthal was part of what they called a Tramadol successor
10 project? Did you know that?

11 A. Well, what, I don't know, at what time you think of?

12 Q. At the time you are submitting this declaration in 2011
13 did you know that at Grunenthal Tapentadol was part of the
14 Tramadol successor project?

15 A. I knew that we wanted to generate a new analgesic which
16 could overcome some of the problems which Tramadol was facing.

17 Q. Did you know that the name of the project at Grunenthal
18 was Tramadol successor project?

19 A. I don't recall this.

20 Q. As far as the data that you submitted at anytime did
21 you compare to the patent office Tapentadol and Tramadol? Not
22 just this declaration, but at anytime?

23 A. Not that I remember.

24 Q. And the Harati article that you discussed with counsel
25 that's an article you also didn't share with the patent office,

1 correct?

2 A. Well, to my recollection the data, the research reports
3 were shared with the patent office. And in the research
4 reports these articles are cited so they should know that this
5 was in the research reports.

6 Q. So you are saying that you agree that you did not give
7 Harati to the patent office but the patent office should have
8 known by reading the reports, looking at the citation and
9 digging through all of these on their own? Is that what you're
10 saying?

11 MR. SITZMAN: Objection, your Honor,
12 mischaracterizes the testimony.

13 THE COURT: Rephrase that question.

14 Q. I want ask do you agree that you did not separately
15 submit Harati to the patent office?

16 A. I don't recall this.

17 Q. And your testimony is that the patent office should
18 have been aware of Harati because it's cited in one of the
19 technical reports that you also believe you submitted to the
20 patent office. Is that right?

21 A. I will say yes.

22 Q. Thank you. No further questions.

23 THE COURT: Thank you. All right. Let's turn to
24 the plaintiffs for redirect.

25 I'm sorry, was there anything additional?

1 MR.FITZPATRICK: Nothing for Actavis your Honor.

2 THE COURT: Anything else from the defendants'
3 side? No? Thank you.

4 REDIRECT EXAMINATION BY MR. SITZMAN:

5 Q. Let me just go over a few, a couple of things. And
6 actually I want to address one thing that Mr. Aly just
7 addressed.

8 Could I have exhibit DTX 1031, please. It's column
9 12, Table 3.

10 Doctor, can I have you look at, it's the '130 patent
11 DTX 1031. Do you see that?

12 A. Yes.

13 Q. Now, do you see Table 3 here in column 12?

14 A. Yes, I do see this.

15 Q. Mr. Aly asked you a bunch of questions as to whether or
16 not you had told the patent office or supplied the patent
17 office with any information comparing Tapentadol to Tramadol?

18 A. Uh-huh.

19 Q. Do you recall those questions?

20 A. Yes I do recall.

21 Q. And I just want to look here at Table 3 compound 9 here
22 in table 3. What's that?

23 A. This should be Tapentadol.

24 Q. And the one above it?

25 A. That's Tramadol.

1 Q. Tramadol. Okay. And over here by the way just since
2 we're here, the 100 percent here is it showing a hundred
3 percent efficacy?

4 A. Yes.

5 Q. And Tramadol is at 86 percent efficacy when Tapentadol
6 is a hundred. Is that correct?

7 A. It's correct.

8 Q. And you submitted this data to --

9 MR. SCHULER: Your Honor, can we have some non
10 leading questions on redirect? It's still direct. This is
11 leading.

12 MR. SITZMAN: I'm allowed to respond to the
13 cross-examination.

14 MR. SCHULER: I'm not saying it's beyond the
15 scope. I'm asking for non leading questions.

16 THE COURT: You can try and rephrase the
17 question.

18 Q. All right. Can you tell us about the efficacy of
19 Tapentadol here as disclosed in Table 3?

20 A. Sure. That means the efficacy, that's what I
21 mentioned also during our previous discussion, that there is
22 full efficacy, a hundred percent efficacy of Tapentadol in this
23 model of polyneuropathic pain. And that's different from
24 Tramadol which show efficacy of 86 percent.

25 Q. And that's also different than morphine too?

1 A. It's different from morphine and it's also different
2 from Gabapentin, yes.

3 Q. And this data, did you supply this data to the PTO?

4 A. Well, I mean it's in the patent.

5 Q. Can I have DTX 2010.

6 Do you remember on cross-examination Mr. Schuler asked
7 you some questions about this article?

8 A. Yes.

9 Q. And this is the article you're the lead author on?

10 A. Correct.

11 Q. Okay. Now, Mr. Schuler asked you some questions here
12 about this paragraph that starts with however. Do you see
13 that?

14 A. Yes.

15 Q. Okay. Sorry. I don't think he asked you about this.

16 Could you read that sentence if you can into the record
17 there?

18 A. Which one?

19 Q. The one that begins however?

20 A. However, the debate about choice of appropriate
21 treatment for neuropathic pain continues. And Tramadol amongst
22 others, among others, is seen as one useful compound in this
23 indication.

24 Q. Okay. And the debate that is referred to here is that
25 the controversy that you were discussing earlier?

1 A. Yes.

2 Q. And so as of this writing your paper here, you didn't
3 believe the debate had been resolved, had you?

4 A. That's correct.

5 Q. Do you remember that Mr. Schuler asked you some
6 questions about this article?

7 A. Yes.

8 Q. And this is DTX 2009. Could you read the yellow
9 highlighted sentence here?

10 A. As is generally the case with neuropathic pain, the
11 treatment of PHN which is postherpetic neuralgia is presently
12 unsatisfactory. Only tricyclic antidepressants have
13 established efficacy in controlled clinical trials.

14 However, many PHN patients obtain no pain relief with
15 these drugs and only occasionally is complete pain relief
16 achieved.

17 Q. And then the last sentence on this page?

18 A. At the present time, there is serious controversy on
19 the issue of whether opioid analgesics are of benefit in
20 painful conditions such as PHN associated with damage to the
21 central or peripheral nervous system.

22 For example, in patients with a wide variety of
23 neuropathic pains, controlled intravenous opioid infusions
24 failed to produce analgesia.

25 Q. Is that discussion consistent with your knowledge at

1 the time about the treatment of polyneuropathic pain and in
2 particular PHN?

3 A. Absolutely. And I mean again if you -- it's again
4 stating intravenous administration which means a high load of
5 opioid which still fails.

6 Q. And actually that's what you testified to when you were
7 responding to Mr. Schuler's questions. Is that correct?

8 A. Yes.

9 Q. Mr. Schuler also showed you this document which was
10 really large. Luckily he didn't read it. The induction of
11 pain. Do you remember that?

12 A. Yes, I do.

13 Q. Okay. Do you remember he showed you a table of
14 definitions?

15 A. Yes.

16 Q. By the way, that's DTX 2012. Do you remember he
17 asked you a little bit, he asked you about the pain definition
18 here?

19 A. Yes.

20 Q. Okay. Let me bring your attention down to Number 8
21 analgesia. What does it say there?

22 A. Analgesia anti- nociception, a reduction in spontaneous
23 pain or the pain elicited by a noxious stimulus.

24 Q. Is the anti-nociception, is that an understanding that
25 you had at the time in terms of what analgesia meant at that

1 time?

2 A. At which time are you talking about?

3 Q. At the time of this article which is 1998.

4 A. 1998, yes. I mean this was, mainly analgesia was
5 mainly in these days referring to established analgesics at
6 that time, which were for chronic and severe pain, was the
7 opiates.

8 Q. You didn't understand that the analgesias at this time
9 were anti-neuropathic, right? They were synonymous with
10 antinociception?

11 A. Yes.

12 Q. Let's turn quickly to the Buschmann patent DTX 120.
13 Let me have column 23. There's a table there.

14 Now, Mr. Schuler asked you some questions about the
15 Buschmann patent and what it disclosed.

16 Do you recall that?

17 A. Yes.

18 Q. And it disclosed or used the word "pain". Do you
19 recall other than this writhing inhibition data, was there
20 anything else in the Buschmann patent showing any efficacy?

21 A. Not to my knowledge.

22 Q. And the writhing inhibition, what kind of test is that?

23 A. That's a kind of acute nociceptive pain elicited by
24 chemical stimulation.

25 Q. And was there any other indication in this patent,

1 based on your review of it, to suggest that the pain referred
2 to here in this patent referred to anything other than
3 antinociception?

4 A. No.

5 Q. Let me also pull up DTX 1030 and let's start on
6 Page 15. Can you bring up the last paragraph on this page?
7 Can you recall this is the report, the cross tolerance and
8 tolerance report for Tapentadol. Do you remember that?

9 A. Yes

10 Q. Do you remember Mr. Schuler asking you about this
11 paragraph about the old dogma?

12 A. Yes.

13 Q. Can we turn to Page 16, something that he didn't show
14 you. And can you pick up mid-sentence mid-paragraph with
15 these data. Can you read that sentence that begins with
16 these?

17 A. These data are far from drawing a complete picture of
18 the clinical situation, but at least they are leading in the
19 same direction as the data of this report.

20 Q. And is that consistent with your recollection of where
21 things stood when this report was written?

22 A. Yes.

23 MR. SITZMAN: I have no further questions your
24 Honor.

25 THE COURT: Thank you.

1 MR. SCHULER: Just real briefly.

2 RECROSS EXAMINATION BY MR. SCHULER:

3 Q. Can you read the last two sentences of that paragraph?

4 A. If you show it to me, yes. Drugs with more than a
5 single mechanism of action might be favorable to drugs acting
6 respectively only at one target. This concept is also seen in
7 the classical W.H.O. leader for the treatment of chronic pain
8 conditions with drug combinations.

9 Q. It says W.H.O. leader. That's a typo?

10 A. That's a typo. Its means letter. That's referring to
11 the W.H.O. recommendation for the treatment of I think mainly
12 cancer associated.

13 Q. And that's multi-modal analgesia, correct?

14 A. Yes.

15 Q. What you're saying here is that tapping into with more
16 than one mechanism of action consistent with the W.H.O. Letter,
17 might be better for treating these, excuse me, chronic pain
18 situations, correct?

19 A. This is comparing the, this is linking the finding to
20 the effect, that's the W.H.O. letter, that the chronic severe
21 cancer pain also recommends kind of a multi-modal pain
22 treatment.

23 MR. SCHULER: That's it.

24 THE COURT: Thank you. Anything else?

25 MR. ALY: Yes, your Honor.

1 THE COURT: Okay.

2 RECROSS EXAMINATION BY MR. ALY:

3 Q. It's that new table we talked about, DTX 1031 at column
4 12 at eight I think on the PDF. Table 3.

5 Now I just want to make sure we understand the
6 comparison, Dr. Christoph. Because I think Mr. Sitzman points
7 out these numbers, 86 percent and a hundred percent.

8 Do you remember that?

9 A. Yes.

10 Q. The dose that as given for Tapentadol was
11 31.6 milligrams per kilogram, right?

12 A. Yes.

13 Q. The dose for Tramadol was two thirds of that, 21.5
14 milligrams per kilogram, correct?

15 A. Yes.

16 Q. And in fact surprisingly on the mechanical hyperalgesia
17 the results were about the same between Tramadol and
18 Tapentadol, right?

19 A. A little bit better for Tapentadol, yes.

20 Q. When you look at overall range, this range over here,
21 they are overlapping, correct?

22 A. That's correct.

23 MR. ALY: Nothing further.

24 THE COURT: Thank you. Anything else?

25 MR. SITZMAN: No, thank you, your Honor.

1 THE COURT: Okay. Thank you. We have concluded
2 with this witness. Thank you, doctor, very much for appearing
3 today. You are excused at this point. Thank you. Your
4 testimony has concluded. Thank you so much.

5 Are we ready with the next witness?

6 MR. SITZMAN: Yes, we are your Honor.
7 Plaintiffs would like to call Dr. Michelle Brown to the stage
8 or to the witness stand.

9 M I C H E L L E B R O W N, sworn and testifies as follows:

10 MR. ALY: Your Honor, we did discuss an objection
11 to the demonstrative. I don't know if your Honor would prefer
12 to do it beforehand or during.

13 THE COURT: I don't believe I received anything
14 yet so why don't I get a set and we can see what we're talking
15 about.

16 MR. SITZMAN: Yes please distribute those.

17 THE COURT: Before we get to that, are there any
18 objections to the exhibits themselves or just this one
19 demonstrative?

20 MR. ALY: From us, not for the exhibits.

21 THE COURT: Anyone ?

22 MR. CAPUANO: No objection.

23 MR. CONNOLLY: No objection.

24 THE COURT: Mr. Aly, what is the objection and
25 which one is it?

1 MR. ALY: I have the larger version. I don't
2 know if your Honor we're looking at the same slide 22.

3 MR. SITZMAN: Can you pull up slide 22 so we can
4 see it on the big screen ?

5 MR. ALY: Or slide 23. So your Honor Dr.
6 Brown's testimony is going to talk about the labels. All
7 right. And as far as the labels are concerned we don't have a
8 problem. What we do have a problem with is Dr. Brown
9 addressing Alkem's intent, the company's intent, somehow
10 reading the mind of the corporation saying Alkem had a specific
11 intent to do X.

12 There's one rule of evidence about which there is
13 much debate in the legal community is that an expert cannot
14 testify about somebody else's intent or state of mind and we're
15 not even --

16 THE COURT: I don't know what she is going to
17 say. But, if what if she were to refer to factors and she
18 would to say well, based upon my reading that establishes
19 intent, would she be able to do so?

20 MR. ALY: No, your Honor.

21 THE COURT: As opposed to your actual mental
22 intent. If she looked at certain indicia and pointed to
23 certain indicia, would she be able to do that?

24 MR. ALY: No, your Honor, that is the ultimate
25 question of intent. Talking about the label or what people

1 will do with the label or not do is fair game. But saying
2 specific intention to induce infringement is not fair game.

3 THE COURT: Counsel.

4 MR. SITZMAN: I've never heard that objection ever
5 before in my life, induced infringement requires intent.
6 Infringement experts are allowed to speak to and address every
7 single element. This expert did address this element in her
8 report.

9 The defendant Alkem decided not to respond to it.
10 Defendant Alkem then also had the opportunity to depose this
11 expert on those issues.

12 The report was issued in June of last year.
13 They've had fair warning of this issue. She has based her
14 opinion on facts. She is entitled, as an expert, to render a
15 decision on the ultimate, or opinion on the ultimate issue and
16 that ultimate issue, as you know, includes intent. All right.

17 So it sounds like there was a long history. She
18 disclosed it. There was certainly a deposition of this
19 particular witness. Why would it be something that would be
20 objected to at this point, given the opportunity for and full
21 and fair disclosure on this? It doesn't appear to be surprise.
22 And she is an expert. Shouldn't she be entitled to opine on
23 these issues?

24 MR. ALY: No, your Honor, because that, what Mr.
25 Sitzman is talking about is discovery obligations and having

1 the exchange and notice about the scope of the opinion. That's
2 a Rule 26 issue, a discovery issue. We are not talking about
3 Rules of Evidence.

4 And we believe, there are several cases, I have a
5 sheet of cases that I can read into the record that says an
6 expert cannot testify as to state of mind.

7 THE COURT: Although was that particular line of
8 thought in her expert report presented through her deposition
9 objected to at the time? I mean it certainly wasn't raised
10 before me.

11 MR. SITZMAN: Correct, your Honor.

12 MR. ALY: This is the time to do it. This is the
13 evidence where it's being presented. It wasn't being presented
14 as evidence before. We wouldn't have, for example, a legal
15 expert saying in response to Dr. Brown's report, no, you can't
16 have expert testimony on intent.

17 We believe this is the first opportunity to raise
18 that type of an objection as evidence as opposed to a discovery
19 issue.

20 MR. SITZMAN: Your Honor, there's no rule of
21 evidence that I'm aware of. I still haven't heard him cite a
22 rule of evidence on this issue. My suspicion, based on his
23 argument, is that he's reading from a bunch cases where an
24 expert has testified about the emotional state of being of some
25 other person.

1 As she disclosed in her expert report, her
2 conclusion on specific intent is based on her review of the
3 ANDA, the letter, the actions and all of the things that Alkem
4 has done to infringe this patent. And she is going to testify
5 shortly. The Court will take that evidence.

6 If Mr. Aly wants to move to strike and he thinks
7 he's got authority for that, he should file a motion and do
8 that. But at this point in time I believe there is no rule of
9 evidence that would preclude her from testifying.

10 MR. ALY: Your Honor, the rules are 701 and 702.
11 A person can only offer expert testimony about the area in
12 which any person can be an expert.

13 THE COURT: But wouldn't she be competent as an
14 expert to go back in the record and look at specific things
15 that were either done or not done and draw a conclusion based
16 upon her experience?

17 And the question was an apt one by Mr. Sitzman in
18 terms of the cases, do you have them precisely in this context
19 or are they dealing with someone's sort of emotional thoughts
20 at a specific point in time? I mean there is a long or a
21 lengthy continuum in terms of these issues.

22 MR. ALY: No, they are, in fact I was familiar
23 with one of these. I happened to be in one of them in the
24 district of Delaware in 2004 and that's another New Jersey case
25 over in the circuit. This is pretty common.

1 THE COURT: What's the case? What's the cite?
2 Do you have a copy of it for the Court?

3 MR. ALY: I do not have a copy. I can share with
4 you this excerpt we have. I would be happy to do that or if
5 you want, your Honor, as Mr. Sitzman said, to brief it later,
6 we are happy to do that too.

7 THE COURT: I think she sounds like she is
8 competent to enter into this testimony, to provide this
9 testimony. If she bases it on something that you think is not
10 appropriate, certainly you can raise it as an issue to strike.
11 But, again, if she is going to be testifying, we heard a
12 preview of what she is going to be testifying as to.

13 And if she's going to be testifying as to certain
14 activity, I would think that that would be appropriate in this
15 circumstance. But, perhaps maybe the best mode is just to see
16 how it unfolds. And if you still have an objection, you can
17 raise it at that time. How does that sound?

18 MR. ALY: We will do so, your Honor.

19 THE COURT: Is that good for everyone?

20 MR. SITZMAN: Yes, your Honor.

21 THE COURT: All right. Let's proceed. Also
22 actually before we go forward, what is the citation Counsel is
23 referencing?

24 MR. ALY: The one I read?

25 THE COURT: Yes.

1 MR. ALY: 345 F Supp 2d 431 at 443.

2 THE COURT: 431 at 443. And what's the name of
3 the case?

4 MR. ALY: Oxford Gene Technology versus Mergen.

5 THE COURT: Is there an additional case?

6 MR. ALY: There are several, your Honor.

7 THE COURT: Would you like to list them all off or
8 would you like to give copies to the Court? You can just list
9 them off now just so we will have them.

10 MR. ALY: Bracco Diagnostic, 627 F Supp 2nd 384
11 at 440. Astra Zeneca versus tap, 444 F Supp 2nd 278 at 293.
12 In re: Rosuvastatin calcium patent litigation 2009 Westlaw
13 4800702.

14 THE COURT: What is what the last one in re:
15 Rosuvastin, I'm sorry R-o-s-u-v-a-s-t-a-t-i-n and Astra Zeneca
16 versus Watson labs.

17 THE COURT: I'm sorry for the last one what was
18 the actual cite for it.

19 MR. ALY: The in re: Rosuvastin. The cite is
20 2009, W.L. 4800702 at eight.

21 THE COURT: At eight okay.

22 MR. ALY: And Astra Zeneca versus Watson labs,
23 2012 W. L. 6043266 at two.

24 THE COURT: Okay.

25 MR. ALY: Thank you.

1 THE COURT: Thank you. Let's proceed.

2 MR. SITZMAN: Thank you, your Honor.

3 M I C H E L L E B R O W N, sworn and testifies as follows:

4 DIRECT EXAMINATION BY MR. SITZMAN:

5 Q. Good afternoon.

6 A. Good afternoon.

7 Q. Could you please state your name for the record?

8 A. Dr. Michelle Brown.

9 Q. And Dr. Brown could you tell us a little bit about your
10 educational background?

11 A. Yes, I went to medical school at the university of
12 Florida. I did an internship in internal medicine at Mount
13 Sinai medical center in Miami. Following that I returned to
14 the university of Florida and completed a residency in
15 anesthesiology. This was followed by a special fellowship in
16 pain management at the university of Florida.

17 I stayed at the University of Pennsylvania in 1997 as
18 an assistant professor of anesthesiology and pain management.
19 Following that, I retained a courtesy clinical associate
20 professor appointment at the university of Florida until 2011.
21 However, simultaneously, I was in private practice from 1997
22 until now.

23 Q. And let's take a look at the next two slides. Does
24 this reflect your current employment, sorry, this does reflect
25 that employment history that some of which you just touched on

1 , correct?

2 A. Yes, it does.

3 Q. Okay. And in the slide before that, could you tell
4 us what's reflected here on this slide?

5 A. Yes. I currently am employed by Unifour anesthesiology
6 associates in hickory, North Carolina. And I work as a staff
7 anesthesiologist and pain management physician at about 9 to 10
8 locations that we staff. I'm also a member of our executive
9 committee of our practice. We manage the entire practice of
10 20 physicians and 70 additional employees.

11 And part of my role on this committee is to supervise
12 all of our medical directors of our clinics, pain clinics.
13 You may see that it says Associate medical director at some of
14 our pain clinics, we assign that name to me at the pain clinics
15 where I staff so that the patients and the staff that work
16 there know that they can come to me specifically with problems
17 at those locations.

18 But overall my duty on the executive committee is to
19 oversee the medical directors. I work to deal with compliance
20 issues, quality measures, managing the staff. I develop
21 policies and procedures. And of course I field complaints
22 too.

23 Q. How long have you worked at Unifour?

24 A. Since 2001.

25 Q. Okay. And generally, if you were to put a label on it,

1 what kind of doctor do you describe yourself as?

2 A. I'm an anesthesiologist and I have a sub specialty
3 certification in pain management.

4 Q. How much time do you spend on a weekly basis seeing
5 patients?

6 A. I spend about 30 hours per week face to face with
7 patients seeing them in the pain clinic. Overall my week may
8 vary putting in anywhere from 40 to 80 hours depending on my
9 call duties. But I also work in the operating room
10 anesthetizing patients for surgical procedures. But on average
11 about two-thirds of my time is spent seeing patients at the
12 pain clinic.

13 Q. And how many pain patients would you estimate that you
14 see on a monthly basis?

15 A. About 500.

16 Q. And how many active pain patients do you currently have
17 under your care?

18 A. I would estimate around 3,000.

19 Q. And can you describe for us, you know the typical pain
20 patient that you see in the pain clinic?

21 A. Usually a patient is referred to me because they have
22 pain and their physician is unable to manage that pain be it
23 their primary care physician or surgeon or some other type of
24 specialist.

25 The most common painful syndrome that we will see

1 involves spine pain, it may involve low back pain or neck
2 pain. Following that we may see other pain conditions like
3 diabetice neuropathy or fibromyalgia. We may also see joint
4 discomfort as well but there's many things that we see

5 Q. Were you retained to provide expert testimony in this
6 case?

7 A. Yes I was.

8 Q. And by whom?

9 A. Depomed.

10 Q. At this phase in the case in terms of where the case is
11 today and trial, what were you asked to do?

12 A. I was asked to assess whether the defendants in this
13 case have infringed the method of treatment claims of the '130
14 patent if allowed to market and sell their generic versions of
15 Nucynta ER.

16 Q. And more specifically were you asked to look at induced
17 infringement for the defendants?

18 A. I was.

19 Q. And were you also asked to look at contributory
20 infringement?

21 A. Yes, I was.

22 Q. And did you make those assessments?

23 A. I did.

24 Q. And at a high level what is, if you can give us summary
25 of those opinions of infringement of the '130 patent?

1 A. Alkem will infringe claims 1,2 3 of the '130 patent if
2 they are allowed to market their generic drug. Both Roxane
3 and Actavis will infringe claims 1 and 2 of the '130 patent if
4 they are allowed to market their generic drug.

5 Q. And generally speaking what do you base these opinions
6 on?

7 A. On my clinical experience as a pain management
8 physician but also on many of the documents I have reviewed in
9 this case.

10 Q. And among those things you reviewed the defendant's
11 proposed labels for their generic versions of the Nucynta ER
12 drug?

13 A. Yes.

14 Q. And you reviewed other portions of their ANDA
15 applications as well?

16 A. Yes.

17 MR. SITZMAN: Your Honor, I would like to offer at
18 this time Dr. Brown as an expert in pain management and
19 treatment, including the management of patients with
20 nociceptive and neuropathic pain.

21 THE COURT: Any objection?

22 MR. CAPUANO: No objection.

23 MR. ALY: No.

24 THE COURT: She is, in fact, deemed as an expert
25 in these areas.

1 MR. SITZMAN: Before I continue forward, I think
2 I know that but if I get close, will you let me know.

3 MR. CAPUANO: Yes.

4 Q. All right. Let's take a step back for a minute and
5 talk a little bit more generally about pain. What is your
6 definition of pain?

7 A. Pain is an unpleasant and emotional sensory experience
8 that is associated with actual or potential tissue damage or it
9 can be explained in terms of such damage.

10 Q. And would you agree then that pain is a symptom? Is
11 that how you describe that?

12 A. Yes, I would.

13 Q. And a symptom would be distinct from a cause of a pain,
14 correct?

15 A. Yes, it is.

16 Q. What types of pain do you find relevant in this case
17 and in rendering your opinions?

18 A. Nociceptive versus neuropathic pain. Acute versus
19 chronic pain. Intensity of pain described as mild, moderate,
20 or severe.

21 Q. Let's briefly chat about nociceptive pain. What is
22 nociceptive pain?

23 A. Nociceptive pain is pain involving specialized nerve
24 endings that are called nociceptors. When nociceptors are
25 activated, this is in response to actual potential tissue

1 damage. A patient will describe this sort of pain as a
2 throbbing or an aching pain much like a toothache or hitting
3 your thumb with a hammer is another example.

4 Typically this is a very distinct pain when a patient
5 is describing it to us.

6 Q. What about neuropathic pain and can you give us some
7 examples?

8 A. Neuropathic pain is pain that results from damage to or
9 dysfunction of the nervous system. A patient will describe
10 this very differently than nociceptive pain. Typically they
11 will describe it as a burning sensation an electrical or
12 shocking sensation, a pins and needles sensation.

13 Examples of this could include diabetic peripheral
14 neuropathy, postherpetic neuralgia, fibromyalgia. A lot of
15 people consider that to be an neuropathic pain.

16 Q. And can certain pain conditions be a combination of
17 both nociceptive and neuropathic?

18 A. Yes, and we usually call these a mixed pain syndrome.

19 Q. And do you have an example of a mixed pain syndrome
20 that we can think about?

21 A. Most common example is chronic low back pain.

22 Q. And that has elements of both nociceptive and
23 neuropathic?

24 A. Yes.

25 Q. What is acute pain?

1 A. Acute pain is pain that generally will last anywhere
2 from 3 to 6 months. It's expected to be self limited or that
3 it will heal overtime.

4 Q. Can you contrast that with chronic pain. How do you
5 define chronic pain?

6 A. Chronic pain is pain that generally will last further
7 than six months and is not expected to heal.

8 Q. Between acute pain and chronic pain, which one falls
9 within the label of Nucynta ER?

10 A. Chronic pain.

11 Q. And why?

12 A. Because this discusses pain that requires around the
13 clock coverage but for an extended period of time or for a long
14 term and that would indicate chronic pain.

15 Q. Focusing on chronic pain then and just chronic pain for
16 a minute, can chronic pain also be nociceptive?

17 A. Yes, it can.

18 Q. And I assume then chronic pain could also be
19 neuropathic?

20 A. Yes it can and probably most often is.

21 Q. Most often is neuropathic?

22 A. Neuropathic, yes.

23 Q. What is that, your assessment there, what is that based
24 on, that it's most often neuropathic?

25 A. I base that on my clinical experience but also when you

1 assess nerves, nerves don't regenerate very well. They don't
2 grow back like if you were to cut your hand with a knife you
3 expect that's going to heal. But nerves don't really
4 regenerate very well.

5 And the classic example of this is Christopher Reeve's
6 spinal cord injury. You don't expect something that is a
7 damage to the nervous system like that to recover very well.
8 That's a clear example of why that turns chronic.

9 Another reason is and I think some of the other
10 experts, medical experts in this case have said this is
11 neuropathic pain is very difficult to treat and you can't seem
12 to get it under control and typically will turn into a chronic
13 pain because of that.

14 Q. Doctor, what is severe pain?

15 A. Severe pain really refers to the intensity of pain.
16 And there's many ways that we refer to the intensity of pain.
17 This is just one of them. And we use a grade like mild,
18 moderate or severe with severe being the worst.

19 Q. And as I asked with the other symptoms we talked about,
20 can severe pain be nociceptive in nature?

21 A. Yes.

22 Q. And can it be neuropathic?

23 A. Yes.

24 Q. All right. Let's take a look at the '130 patent.
25 Can I have the -- there we go.

1 You're aware that the plaintiffs have asserted claims
2 1, 2, 3 and 6 of the '130 patent against Alkem, correct?

3 A. Yes.

4 Q. And that the plaintiffs have also asserted claims 1 and
5 2 against Actavis and Roxane?

6 A. Yes.

7 Q. And I think you said this earlier, you understand that
8 claims 1, 2, 3 and 6 are all method of treatment claims?

9 A. Yes.

10 Q. Now, could you just describe in your own words as you
11 are looking at claim one, does that cover -- how do you read
12 claim one?

13 A. It's a method of treating polyneuropathy pain using
14 Tapentadol.

15 Q. Okay and is claim two different from claim one in your
16 perspective?

17 A. Only in the sense now that Tapentadol is being
18 described as a salt.

19 Q. And is claim, sorry, so what type of, just looking at 1
20 and 2 for a second, what type of pain do you believe claims 1
21 and 2 cover?

22 A. Polyneuropathic pain.

23 Q. Is claim three different from claims 1 and 2?

24 A. This claim discusses only diabetic polyneuropathic pain
25 which is a type of polyneuropathic pain.

1 Q. And claim six, does that also cover diabetic
2 polyneuropathic pain?

3 A. Yes, I think diabetic polyneuropathy is just worded
4 slightly differently here but again it's still a type of
5 polyneuropathic pain.

6 Q. Now, doctor, in prescribing a drug to a patient do you
7 read the package insert or label for the drug?

8 A. I do. In fact the FDA wants us to.

9 Q. Have you ever been instructed or were you ever
10 instructed in medical school that you should not read the
11 package insert for a drug before prescribing a drug to a
12 patient?

13 A. No I was never taught that.

14 Q. Do you think it's reasonable for a physician to ignore
15 the package insert or label?

16 A. No, I don't think that's reasonable.

17 Q. And how many physicians again do you work with in your
18 group that you oversee?

19 A. We have twenty physicians.

20 Q. And based on your work with them and your oversight,
21 do your colleagues read the package inserts and labels of the
22 pain medications that they prescribe?

23 A. They do. In fact, at some of my locations I work with
24 more than one physician at the same location in a day and I can
25 tell you that we may be standing at the nurse's station looking

1 at a package insert figuring out how to prescribe it for
2 somebody. And this is a teaching opportunity for the both of
3 us.

4 If there's two of us, for example, and as a supervisor
5 if a physician with whom I work prescribes a medicine in an
6 unsafe manner, I will hear about it. And if that happens it's
7 certainly brought to my attention.

8 Q. Now, aside from the package insert and the label, do
9 you also read literature about approved drugs and prescribing
10 them to patients?

11 A. I do.

12 Q. And when you have a patient in your office, do you
13 rely on the label or do you rely on the literature when you
14 prescribe a particular drug?

15 A. Practically speaking I relied on the label. This is
16 information that's been scientifically vetted by the FDA. If
17 I have a patient who is sitting in my waiting room and Mrs.
18 Jones is in there waiting for me to write a prescription, it is
19 very impractical for me to go pull the literature on a
20 particular drug and see what it says.

21 And I rely upon the label in those situations to
22 prescribe a medication, I have a license to prescribe
23 effectively the proper doses and make sure that I'm not going
24 to bring harm to that patient.

25 Q. Let's take a look at the Nucynta ER label starting with

1 its original version.

2 Can I have PTX 1499 ?

3 And do you recognize this document, doctor?

4 A. Yes. This is the original label for Nucynta ER when it
5 was FDA approved in 2011.

6 Q. And Ross can you blow up the indications and usage
7 section on the left column there ?

8 What was Nucynta ER originally approved for in 2011?

9 A. It was indicated for the management of moderate to
10 severe chronic pain in adults when a continuous, around the
11 clock opioid analgesic is needed for an extended period of
12 time.

13 Q. Can polyneuropathic pain be moderate to severe chronic
14 pain as described here in this indication?

15 A. Yes, it can. I think the other experts in this case
16 have also said the same thing.

17 Q. Let's take a look at a little deeper into this first
18 label. Page 273457. And if you can blow up the first part
19 of the clinical study section there.

20 And you see disclosed there the chronic low back pain
21 study. Do you see that?

22 A. Yes.

23 Q. Okay. And you understand that this was one of the
24 studies that was submitted in the approval process for Nucynta
25 ER?

1 A. Yes it was.

2 Q. Can you describe just on a high level what the results
3 show in terms of Nucynta ER? You may need the rest of that
4 label. But in terms of the Nucynta ER in the performance here
5 in this chronic low back pain study.

6 A. Yes, it showed that patients who on average had severe
7 low back pain were given either Nucynta ER or placebo and
8 showed improved pain relief with Nucynta ER compared to
9 placebo.

10 Q. I think we talked about this at the outset but it is
11 your belief that chronic low back pain can be polyneuropathic?
12 Is that what you said?

13 A. Yes, and it often is.

14 Q. In your experience, in your practice, do you see
15 patients with chronic low back pain who have a polyneuropathic
16 cause?

17 A. Yes. Chronic low back pain is probably one of the most
18 common painful syndromes and I see and it frequently does have
19 polyneuropathic pain associated with it, particularly as it
20 gets chronic and severe.

21 Q. Now, Dr. Weinberger and Actavis have argued that
22 chronic low back pain consists of neuropathic components. Do
23 you agree with that?

24 A. No, I don't.

25 Q. And what do you rely on for that opinion?

1 A. My clinical experience but also on some of the
2 literature.

3 Q. Let's take a look at one of them that was used the
4 other day. Can I have PTX 872. This is the Morlion or
5 Morlion, I'm going to get my French down soon, Morlion
6 reference.

7 Do you recognize that?

8 A. Yes I do.

9 Q. You've read this article and this reference before I
10 take it?

11 A. Yes.

12 Q. Let's look at Page 870. Down there in the last
13 paragraph, thanks, Ross.

14 Now, Actavis and Dr. Weinberger argue that this portion
15 of this reference supports their position that chronic low back
16 pain rarely has a neuropathic pain component.

17 Do you agree with that?

18 A. No I don't.

19 Q. And can you explain why?

20 A. This is very difficult to read. But, looking at the
21 numbers that are presented here, such as the first sentence
22 that overall 80 to 90 percent of patients with low back pain
23 are thought to experience pain arising from a nociceptive
24 mechanical cause, while that statement may be true, this is
25 encompassing acute and chronic low back pain. There is no

1 mention that this is specifically chronic low back pain. Go
2 ahead.

3 Q. And only chronic low back pain would fall within the
4 Nucynta, correct, Nucynta label, correct?

5 A. Yes.

6 Q. Is there a mention of low back pain in this section
7 that Actavis is relying on?

8 A. Although it's difficult to read, the sentence that
9 begins with however towards the bottom does references that.

10 Q. And what does that say?

11 A. It says However, note that this percentage is higher in
12 the presence of a neuropathic pain component when chronic low
13 back pain is considered.

14 Q. All right. Can we also turn, since we are in this
15 article, can we turn to Page 869? I believe it's at the bottom
16 of this first column, the part of chronic LBP and we may need
17 the paragraph on the top of the second column.

18 Does this section of Morlion also discuss chronic low
19 back pain?

20 A. Yes. This is a little more specific to chronic low
21 back pain here.

22 Q. And here it references, it looks like at the bottom of
23 the first pull out thus recent studies have demonstrated that
24 approximately 20 to 50 percent of patients with chronic low
25 back pain have a greater than 90 percent likelihood of a

1 neuropathic pain component.

2 Is that consistent with your practice and your
3 understanding?

4 A. Yes and I think even further the further statement that
5 an additional 28 percent of patients with a neuropathic pain
6 component is suspected. And then the next sentence is also I
7 think quite relevant, the presence of neuropathic pain
8 component is associated with more severe pain symptoms.

9 Q. Excellent. All right. Despite all of this that we
10 just looked at, are all forms of chronic low back pain
11 neuropathic?

12 A. No.

13 Q. Okay. So they can be, they can have nociceptive
14 components?

15 A. They can be nociceptive, mixed or neuropathic.

16 Q. So, given this, do you have an opinion as to whether
17 chronic low back pain would fall within indication one of the
18 Nucynta ER label for moderate to severe chronic low back pain?

19 A. Yes, chronic low back pain would fall into that
20 indication.

21 Q. Okay. And do you, what do you base that opinion on?

22 A. I base that on literature like this, my clinical
23 experience and also on the label.

24 Q. In fact, there was a chronic low back pain that was
25 submitted with the label?

1 A. Yes.

2 Q. Are there other studies that were submitted with the
3 original Nucynta ER label?

4 A. Yes.

5 Q. Can we go back to that? It's Nucynta 458. This is the
6 other study that you are referring to?

7 A. Yes.

8 Q. What study is this?

9 A. This is the study looking at the benefits of Nucynta ER
10 in patients who had painful diabetic peripheral neuropathy.
11 And in fact this study at the time was pivotal because with any
12 type of drug that had MU opioid receptor activity, we had never
13 seen a pure neuropathic pain model used in support of FDA
14 approved in any way. It was the first time. And this was
15 quite remarkable.

16 And I remember thinking about this that this was
17 something that I have never seen before.

18 Q. And these results are reported in the label here. Is
19 that correct?

20 A. Yes.

21 Q. And I guess this goes without saying but I just want to
22 confirm, DPN is a type of polyneuropathic pain?

23 A. Yes, and the studies showed that patients showed
24 improved pain relief with Nucynta ER compared with placebo.

25 Q. Do you have an opinion as to whether DPN falls within

1 the first indication of the label for moderate to severe
2 chronic pain?

3 A. Yes, it falls within the label and also it appears that
4 the FDA thought that too.

5 Q. Let's go to PTX 1383. I want to show you, move to the
6 current label of Nucynta ER, and if you could blow up the
7 indications and usage section again.

8 Do you recognize this document?

9 A. Yes, this is the current Nucynta ER label.

10 Q. Okay. And focusing on these indications and usages,
11 what is Nucynta ER currently indicated for?

12 A. The first indication is pain severe enough to require
13 daily around the clock long term opioid treatment and for which
14 alternative treatment options are inadequate.

15 And the second indication, the neuropathic pain
16 associated with diabetic peripheral neuropathy otherwise known
17 as DPN in adults severe enough to require daily around the
18 clock long term opioid treatment and for which alternative
19 treatment options are inadequate.

20 Q. Can pain severe enough to require daily around the
21 clock long term opioid treatment be polyneuropathic?

22 A. Yes, and it often is.

23 Q. Now are you aware of why there was a wording change
24 from the original label we just looked at to this one in terms
25 of indication one?

1 A. No, I'm not.

2 Q. Other than the wording difference, do you view them
3 clinically different in any way, shape or form?

4 A. No, I don't.

5 Q. When you look just at indication one for a second, is
6 there any particular cause of the pain symptom that is
7 specified in indication one?

8 A. No, simply for pain.

9 Q. So that's the symptom that we talked about earlier?

10 A. Correct.

11 Q. Indication two, is that a particular cause associated
12 with the symptoms?

13 A. Yes, that's specific to diabetic peripheral neuropathy.

14 Q. And does diabetic peripheral neuropathy fall within
15 indication one?

16 A. Yes, it does.

17 Q. Do other causes fit within indication one?

18 A. Yes.

19 Q. And does polyneuropathic pain describe many of those
20 causes?

21 A. Yes.

22 Q. All right. Turning to second 14, one of the current
23 labels which is Page 9. Thanks Ross.

24 These are the clinical study section. It looks like a
25 second study has been added. Do you see that?

1 A. Yes.

2 Q. And what is that additional study?

3 A. An additional DPN study was added to the current label.

4 Q. How does this new DPN study affect your opinions in
5 this case.

6 A. It does not.

7 Q. And why not?

8 A. Because it doesn't change clinically how I may
9 prescribe the drug. There was already a DPN study in the
10 original label.

11 Q. So if we can go on to the next demonstrative I just
12 want to confirm your understanding.

13 Then that indication one, I'm sorry, indication one
14 was supported with the first two studies we see here?

15 A. Yes.

16 Q. And then indication two was supported with the second
17 DPN study, correct?

18 A. Yes.

19 Q. All right. And if we can have the next to confirm
20 your understanding then actually go back one I think. There
21 we go.

22 Indication one, in your opinion, that indication one
23 covers claims 1, 2, 3 and 6 ?

24 A. Yes.

25 Q. And indication two, what does that cover?

1 A. Claims 3 and 6.

2 Q. Okay. So I know you're not a lawyer but I would like
3 to go through the different types of infringement you were
4 asked to address in this case and that we talked on very early
5 on in this examination.

6 Can we have, there we go.

7 Do you understand that to find induced infringement
8 there must be direct infringement, knowledge that the actions
9 would cause infringement and specific intent to induce
10 infringement?

11 A. Yes.

12 Q. And to find contributory infringement there must be
13 those same first two elements, direct infringement and
14 knowledge that the actions would cause infringement plus, no
15 substantial noninfringing uses and that the component must be a
16 material part of the invention?

17 A. Yes.

18 Q. Did you agree with those elements in this case?

19 A. Yes, I did.

20 Q. Let's take Alkem first.

21 MR. ALY: Your Honor, this may be a good time as
22 we enter into the information presented by defendant, to have
23 the courtroom sealed.

24 MR. SITZMAN: That's fine. I was going to wait
25 until we got to Actavis but that's fine.

1 THE COURT: Would you like to do that now?

2 MR. ALY: Sure.

3 THE COURT: We are going to clear the courtroom
4 so counsel obviously will remain and the clients will remain.
5 Everyone else must wait outside.

6 MR. KANDARA: John Kandara, a California attorney,
7 member of the public.

8 It appears that during Dr. Weinberger's testimony
9 yesterday there was at least some of that testimony that should
10 have been open to the public and was not. We have heard some
11 of that discussion today.

12 THE COURT: I am not certain what you refer to but
13 if someone knows what this gentleman is speaking of, maybe you
14 can enlighten me. I'm getting nods no.

15 MR. KANDARA: I will tell you right now. It
16 appears there was some discussion by Dr. Weinberger about some
17 papers, a paper that he was using to cite to. Let's see, a
18 paper that he cited to support his opinion.

19 All I'm asking, if I can find, the reference, it
20 was PTX 870 pages 869 and 870, he discussed, the paper
21 discussed whether chronic low back pain did or did not have a
22 polyneuropathic component.

23 What I'm asking is that to the extent that there
24 is any discussion today that would not relate directly to the
25 labels and what the labels say, the parties would police

1 themselves a little bit better than they did yesterday and
2 allow the public back in.

3 THE COURT: We are narrowly tailoring this and we
4 have the entirety of the proceedings open to the public with
5 the exception of a very small portion of the testimony.

6 MR. KANDARA: I understand that.

7 THE COURT: That has been highlighted by counsel
8 and they determine whether it's time that we are going to be
9 discussing something that is subject to sealing at that point.

10 And we have many documents in the case, obviously
11 that have been sealed previously, not exactly on this date, but
12 previously sealed. And if we are talking about any areas that
13 go into that, obviously the courtroom needs to be sealed.

14 If you believe there has been some portion, a
15 small portion that may have been included in the sealing that
16 shouldn't be included in the sealing, I'm not certain exactly
17 as to what that is. I know you mentioned something today. I
18 don't know if counsel know anything about that or why it's
19 being brought up. But obviously we're trying to narrowly
20 tailor that.

21 MR. KANDARA: I understand.

22 THE COURT: We've asked members of the public be
23 excused. As we attend to, that there may be testimony that is
24 subject to sealing not for any other reason.

25 Let me hear from counsel on this if you have any

1 other information that can bear upon this.

2 MR. CAPUANO: Your Honor, in a 10 or 15-minute
3 exchange, there are going to be a handful of questions, maybe
4 more, that aren't related to confidential information. I don't
5 think it's practical to open and close the door for five
6 questions and then send people out again and have them ushered
7 in and out.

8 It's just we are trying to do the best we can to
9 be as narrowly tailored as you to protect our client's
10 information.

11 THE COURT: Counsel.

12 MR. SITZMAN: I just want to comply with the
13 concerns that everybody has. It seems to me, though one thing
14 that dawns on me, I guess we'll have to go back to the
15 transcript anyway, we could always, when we have the transcript
16 in front of us --

17 THE COURT: We could unseal a portion of it.

18 MR. SITZMAN: Unseal the portions, but at this
19 point there's --

20 THE COURT: There's nothing being done here to
21 prevent the public from hearing matters aside from those that
22 are actually sealed.

23 MR. KANDARA: I understand, your Honor.

24 THE COURT: As the Court needs to be very mindful
25 of protecting the record because certainly that is my job here.

1 MR. KANDARA: I was only --

2 THE COURT: So, as counsel for Actavis has
3 mentioned, if he does ask a question that perhaps is not
4 something that pertains to something to be sealed because he is
5 following up with before and after with questions that need to
6 be protected, obviously that has to be covered here. We could
7 have at left members of the public go in and out after every
8 question but we are trying to work it out in as best a way we
9 can work it on.

10 MR. KANDARA: I am not asking for every other
11 question, your Honor. I am asking to the extent that counsel
12 is aware that there is going to be a block of questions that is
13 not related to confidential information, they inform the Court
14 of that and have the courtroom reopened until such time as
15 there is another block of confidential information.

16 THE COURT: I totally understand.

17 MR. KANDARA: That's all I'm asking.

18 THE COURT: I totally understand. I believe they
19 have been working in a very cooperative method and way to get
20 that done and to insure that is adhered to but our goal is all
21 the same here. We have one goal to protect that which needs
22 to be protected. And beyond that certainly we are interested
23 in providing this as being an open forum for the public.

24 But I do need to make sure that whatever counsel
25 has told me needs to be protected, that certainly we operate on

1 that principle. And if there is anything that has gone by
2 which looks like it has been covered through a section of
3 testimony that has been sealed, we can take a look at that at a
4 future time.

5 As I indicated, our goals are to provide the
6 litigants here, the parties with the protection that they
7 deserve regarding their particular documents and testimony that
8 need to be protected, and balance that against what the public
9 needs. And we have been doing this in a way that insures that
10 the public can hear you know everything that can be given to
11 the public. So we are not trying to do anything but that.

12 So, let me take down the pages of the testimony
13 you are looking at and certainly counsel can look at that and
14 see if there's any issue. You mentioned it was at the
15 beginning but we don't have that before us right now. So tell
16 me what it is and counsel will take a look at it and get back
17 to me.

18 MR. KANDARA: Apparently on some discussion
19 yesterday during Dr. Weinberger's testimony of the Morlion
20 article PTX 872 and whether it supported his opinion that
21 chronic low back pain rarely has a polyneuropathic component.
22 Such discussion clearly does not involve one label or another
23 or the language that's included in that label and thus should
24 not be considered confidential.

25 THE COURT: Okay. We don't have a transcript

1 right now but when we get that transcript, we will certainly
2 take a look at it and direct counsel to take a look at it. And
3 if there is any reason that it needs to remain sealed, you will
4 let me know that.

5 If there's any reason that it can be open to the
6 public, you will let me know. How does that sound?

7 MR. SITZMAN: We will do.

8 MR. CAPUANO: We will.

9 THE COURT: We will all endeavor to work together
10 on this issue so there are no further complications. Thank
11 you. At this point we are however to seal the courtroom
12 because I have been informed that the following material is
13 privileged, confidential, highly confidential, needs to be
14 retained.

15 So let me go through and I will do the same. I
16 will follow the same procedure that I have been following.
17 Let's see all the folks from the plaintiffs. We have Depomed.
18 Let's see you folks. Grunenthal. Actavis. Roxane. Alkem.
19 All right.

20 Anyone else? We have someone in the corner. You
21 are here with one of the teams. With Roxane. All right.
22 Let's go. Let's seal the courtroom.

23 (Whereupon the hearing is sealed).

24 (Whereupon the following takes place in open
25 court)

1 MS. SHARKEY: We are going to pass out corrected
2 Mogil exhibits.

3 THE COURT: These are corrected? These look like
4 demonstratives.

5 MS. SHARKEY: These are demonstratives corrected
6 in hard copy after the discussion on Friday.

7 MR. CONNOLLY: You may recall Mr. Schuler and Mr.
8 Sitzman had a discussion about a couple of slides, reached an
9 accommodation, and I think that we promised to get you
10 replacement slides. Because I think at some point there were
11 either handwritings or blackouts or whatever. It's just it
12 reflects the agreement among counsel.

13 THE COURT: I got it. Okay. That makes sense.
14 Thank you.

15 MR. CONNOLLY: I know that there's no reporter
16 here to report on that important development.

17 THE COURT: We did just unseal the room so.

18 MR. CONNOLLY: Right.

19 THE COURT: It is unsealed. Everyone is free to
20 listen. In any event, do we have anything else that we need
21 to discuss today before we break?

22 MR. CONNOLLY: Not from Roxane. Your Honor.

23 THE COURT: Anything?

24 MR. ALY: No, your Honor

25 MR. FITZPATRICK: No.

1 MR. SITZMAN: Nothing, your Honor.

2 THE COURT: Excellent. We will be adjourned for
3 the evening. I look forward to the continuation of the
4 cross-examination tomorrow morning. And I think that's it.

5 And again who did we say was going to be on the
6 witness stand for the remainder of the day thereafter?

7 MR. ALY: Two witnesses, Steed and Wolf.

8 THE COURT: And they are?

9 MR. ALY: Steed is a polymorph expert that Alkem
10 is calling.

11 MR. CONNOLLY: And Dr. Wolf, your Honor, is a
12 stereochemistry expert. He is going to testify about
13 enablement and written subscription. And then keeping in the
14 theme of the trial, he is also a German who speaks accented
15 English.

16 THE COURT: We are getting very used to that. We
17 will be in good shape.

18 Anything else? We are going to conclude. Thank
19 you very much, everyone. Much appreciated for your time and
20 effort today. Thank you.

21 (Whereupon the matter was concluded).
22
23
24
25